



Puyallup Tribe of Indians
Revised Water Quality Standards



FACT SHEET No. 3:

Updates to Criteria

The Tribal water quality standards provide a mechanism for managing and regulating the quality and use of the Puyallup Tribe of Indians' waters by establishing the water quality goals for specific water bodies, and providing a legal basis for regulatory controls. The standards are also designed to establish the uses for which the surface waters of the Tribe shall be protected. The Tribal standards were first approved in 1994, and have just undergone their first triennial review.

What Are The Changes?

Federal water quality regulations require Tribes and States to adopt water quality criteria to protect designated uses. The criteria must be based on sound scientific rationale and must be adequate to protect the designated uses. The regulations encourage Tribes and States to adopt both *numeric* and *narrative* criteria. Numeric criteria consist of numeric limitations on the concentration of specific pollutants in the water, and narrative criteria are more general statements that apply to a wide set of pollutants or conditions. Based on this triennial review, changes to several numeric criteria are included in the revised Tribal standards, including changes to bacteria, dissolved oxygen, and temperature criteria; changes to toxics criteria to protect aquatic life and human health.

A new separate section was added in the revised Tribal standards to present narrative criteria. Narrative criteria consist of statements that may be the basis for limiting toxicity in waste discharges where a specific pollutant can be identified as causing or contributing to toxicity, but where there are no numeric criteria in the Tribal standards; they can also be used where toxicity cannot be traced to a particular pollutant. Narrative criteria are especially important to a water quality program because numeric criteria cannot reasonably be expected to anticipate all the water quality issues arising from every activity that can affect numerous individual water bodies. They provide a mechanism to address any unanticipated water quality issues by filling the gaps left by numeric criteria that have not been updated, do not exist, or were not developed to protect the most sensitive uses of a waterbody.



Bacteria: Water quality criteria for bacteria are based on concentrations of *indicator organisms* that should not be exceeded in order to protect human health from pathogen-caused illness. The EPA has conducted extensive studies to determine which indicator organisms are best suited for predicting the presence of gastrointestinal illness-causing pathogens in water. The EPA currently recommends the use of enterococci for marine waters and either *E. coli* or enterococci for fresh waters, and encourages Tribes and States to transition to these indicators in their upcoming triennial reviews. Additionally, EPA guidance includes criteria based on fecal coliform bacteria that may be applied to waters supporting shellfish harvest.

Dissolved Oxygen: The existing Tribal standards include dissolved oxygen (DO) criteria for each of the surface water classes, and the criteria are intended to be protective of the most sensitive aquatic life use within each class. The criteria are minimum values which should be exceeded at all times to adequately protect designated aquatic life uses. The revised Tribal standards are similar but are specific to individual aquatic life uses and based on EPA guidance. The revised values for the Tribal DO criteria are equal to, or greater than, the current criteria for similar uses, and include both a short-term one-day minimum (1-Dmin) and a longer-

term floating 7-day average of the daily mean values (7-DADMean). As recommended by EPA, the revised criteria use “no production impairment” values as 7-day mean criteria, and “slight production impairment” values as absolute minimum criteria.

Temperature: The existing Tribal standards include temperature criteria for each of the surface water classes, and the criteria are intended to be protective of the most sensitive aquatic life use within each class. The criteria are maximum values that should not be exceeded in order to adequately protect designated aquatic life uses. The revised Tribal standards are similar but are specific to individual aquatic life uses and based on *EPA Region 10 Guidance for State and Tribal Temperature Water Quality Standards*. The revised values for the Tribal temperature criteria are equal to, or lower than, the current criteria for similar uses, and are based on a floating 7-day average of the daily maximum temperature (7-DADMax).

Other Conventional Criteria: The changes to Tribal criteria for turbidity, pH, and total dissolved gas reflect the change from a class-based to a use-based format. No other changes to these criteria are made in the revised Tribal water quality standards.

Aquatic Life Toxics Criteria: The changes to aquatic life toxics criteria reflect the most recent federal criteria recommended by EPA. The revised values are generally similar to or more stringent than the previous criteria.

Human Health Criteria: For surface waters to be considered fishable (one of the goals of the Clean Water Act), the aquatic life in those waters must be free from human-caused contamination that would preclude safe consumption of the aquatic life by humans and wildlife. Meeting this use in waters under Tribal jurisdiction will require that water quality is sufficient to support cultural consumption patterns that may differ significantly from the consumption patterns of the “general population” that are the basis for existing human health-based water quality criteria. Revised criteria for the protection of human health were developed based on EPA guidance taking into account a subsistence-based fish consumption rate, which was determined following EPA’s recommended methodology. This rate is approximately 22 times higher than the consumption rate used in the original Tribal criteria. Consequently, the revised human health criteria are more protective of human health than the criteria found in the existing Tribal standards.

Narrative Criteria: The new narrative criteria include EPA’s recommended general narrative criteria, as well as narrative biological, wildlife, and wetland criteria.

Implications

The revised numeric criteria will be protective of human health, aquatic life, and environmental health, including threatened and endangered species, and particularly salmonid species. The revised criteria will have a small impact on existing and new discharge (NPDES) permits, because the revised values for individual constituents are generally similar to or more stringent than the previous criteria.

The change from class-based to use-based designation system is discussed in more detail in Fact Sheet No. 1. The new designated uses are discussed in Fact Sheet No. 2; Fact Sheet No. 4 summarizes updates to the antidegradation policy; and Fact Sheet No. 5 presents changes to discretionary policies.



If you have any questions regarding the revised Tribal water quality criteria, please contact:

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